National Institute of Environmental Health Sciences

Climate-induced population displacements in a 4 degrees C+ world

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Abstract:

Massive population displacements are now regularly presented as one of the most dramatic possible consequences of climate change. Current forecasts and projections show that regions that would be affected by such population movements are low-lying islands, coastal and deltaic regions, as well as sub-Saharan Africa. Such estimates, however, are usually based on a 2 degrees C temperature rise. In the event of a 4 degrees C+ warming, not only is it likely that climate-induced population movements will be more considerable, but also their patterns could be significantly different, as people might react differently to temperature changes that would represent a threat to their very survival. This paper puts forward the hypothesis that a greater temperature change would affect not only the magnitude of the associated population movements, but also--and above all--the characteristics of these movements, and therefore the policy responses that can address them. The paper outlines the policy evolutions that climate-induced displacements in a 4 degrees C+ world would require.

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Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Extreme Weather Event, Food/Water Security, Human Conflict/Displacement, Sea Level Rise, Temperature, Other Exposure

Extreme Weather Event: Drought, Flooding, Hurricanes/Cyclones

Temperature: Extreme Heat

Other Exposure: Sea Level Rise; Salt Water Intrusion

Geographic Feature:

resource focuses on specific type of geography

General Geographical Feature

Geographic Location:

resource focuses on specific location

Global or Unspecified

Health Impact: ☑

specification of health effect or disease related to climate change exposure

Health Outcome Unspecified

Mitigation/Adaptation: ☑

mitigation or adaptation strategy is a focus of resource

Adaptation

Model/Methodology: ☑

type of model used or methodology development is a focus of resource

Methodology

Resource Type: ☑

format or standard characteristic of resource

Policy/Opinion

Timescale: ☑

time period studied

Time Scale Unspecified